

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed September 22, 2004. Reconsideration and allowance of the application and pending claims 1-13 are respectfully requested.

I. Double Patenting Rejections - Obviousness-type Double Patenting

Claims 1, 4, 5, 6, 9 and 10 have been rejected under the doctrine of obviousness-type double patenting as being unpatentable in view of claims 1-4 of U.S. Patent No. 6,721,503 B1 ("the '503 patent").

Although Applicants do not concur that claims 1, 4, 5, 6, 9, and 10 are unpatentable in view of claims 1-4 of the '503 patent, Applicants, in the interest of expediting issuance of a patent, have submitted herewith a terminal disclaimer that disclaims any portion of term for a patent issuing from the present application that will extend beyond the term of the '503 patent. Applicants therefore respectfully request that the rejection be withdrawn.

II. Claim Rejections - 35 U.S.C. § 103(a)

A. Rejection of Claims 1-13

Claims 1-13 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Krause* ("Krause," U.S. Pat. No. 5,448,077) in view of *Simms et al.* ("Simms," U.S. Pat. No. 4,948,960). Applicants respectfully traverse this rejection.

B. Discussion of the Rejection

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office (“USPTO”) has the burden under section 103 to establish a proper case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Accordingly, to make a proper case for obviousness, there must be a prior art teaching or established knowledge that would suggest to a person having ordinary skill in the pertinent art to fill the voids apparent in the applied reference. It is respectfully asserted that no such case has been made in the outstanding Office Action.

Independent Claim 1

As provided in independent claim 1, Applicants claim (emphasis added):

6. A bi-directional optical link, comprising:
a thin film detector having an upper surface facing a predetermined direction to receive incident light; and
a thin film emitter stacked over the upper surface and oriented to direct a beam of light toward the predetermined direction.

Applicants respectfully submit that the cited references do not disclose, teach, or suggest the emphasized claim features. The Office Action alleges:

Krause does not clearly show thin film emitter/detector having the thickness of thin film (col. 4, lines 37-48). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to associate thin film emitter/detector as taught by Simms into the teaching of Krause in order to create an optical link for emitting and detecting light with decreasing optical loss and increasing collection (Simms, col. 9, lines 4-6).

Although Applicants agree that *Krause* does not show a *thin film emitter* or *thin film detector*, Applicants do not agree that it would have been obvious to associate a thin film emitter/detector as allegedly taught by *Simms* into the teaching of *Krause*. As an initial matter, although one or more of the layers of the diode in *Simms* may have a thickness of a thin film device, that does not make the emitter or detector layer of the diode a *thin film emitter* or a *thin film detector* as recited in claim 1. As described in the Preliminary Remarks filed with Applicants' application:

In thin film technology, the thick substrate is removed. Substrates in generally are optically absorbing. By removing the substrate, such as in thin film technology, fabrication is generally simpler and the optically absorbing portion is removed.

Simms describes a unitary dual mode diode (see col. 2, line 13) that includes, among other layers, an integrated substrate layer (see, e.g., layer 9 in Figure 5), unlike thin film technology. The emitter and diode layers are epitaxially grown (see col. 2, lines 51-52), which generally presumes growth on a substrate. Further, the substrate layer(s) remain integrated with the unitary model, as shown in Figures 1 and 5. Thus, neither *Simms* nor *Krause*, alone or in combination, discloses, teaches, or suggests a *thin film detector* or a *thin film emitter*, as recited in claim 1.

Because independent claim 1 is allowable over the cited references, corresponding dependent claims 2-5 are allowable as a matter of law for at least the reason that dependent claims 2-5 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Independent Claim 6

As provided in independent claim 6, Applicants claim (emphasis added):

6. A method establishing a bi-directional communications link, comprising the steps of:
 positioning a *thin film detector* having an upper surface so as to face a predetermined direction to receive incident light;
 stacking a *thin film emitter* over the upper surface; and
 orienting the *thin film emitter* to direct a beam of light toward the predetermined direction.

Applicants respectfully submit that the cited references do not disclose, teach, or suggest the emphasized claim features. Although Applicants agree that *Krause* does not show a *thin film emitter* or *thin film detector*, Applicants do not agree that it would have been obvious to associate a thin film emitter/detector as allegedly taught by *Simms* into the teaching of *Krause*. As an initial matter, although one or more of the layers of the diode in *Simms* may have a thickness of a thin film device, that does not make the emitter or detector layer of the diode a *thin film emitter* or a *thin film detector* as recited in claim 1. *Simms* describes a unitary dual mode diode (see col. 2, line 13) that includes, among other layers, an integrated substrate layer (see, e.g., layer 9 in Figure 5), unlike thin film technology. The emitter and diode layers are epitaxially grown (see col. 2, lines 51-52), which generally presumes growth on a substrate. Further, the substrate layer(s) remain integrated with the unitary model, as shown in Figures 1 and 5. Thus, neither *Simms* nor *Krause*, alone or in combination with, discloses, teaches, or suggests a *thin film detector* or a *thin film emitter*, as recited in claim 6.

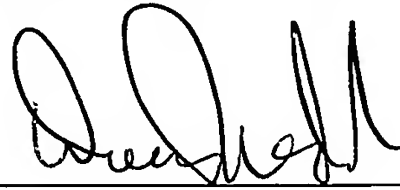
Because independent claim 6 is allowable over the cited references, corresponding dependent claims 7-13 are allowable as a matter of law.

In summary, it is Applicants' position that a proper case for obviousness has not been made against Applicants' independent claims 1 and 6, or claims 2-5 or 7-13 which respectively depend therefrom. Therefore, it is respectfully submitted that each of these claims is patentable over the cited references and that the rejection of these claims should be withdrawn.

CONCLUSION

Applicant respectfully submits that Applicants' pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,



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